

NON-CONFIDENTIAL SUMMARY OF SEA

Legal name of applicant(s): *Vinyloop Ferrara SPA*

Co-applicants :
Plastic Planet S.R.L.
Stena Recycling AB
Collectively referred to as “Soft PVC Recyclate Authorization Consortium” (in short : SPAC) for the purpose of this Application for Authorization

Submitted by: *Vinyloop Ferrara SPA*

Substance: **BIS(2-ETHYLHEXYL) PHTHALATE (DEHP)**

Use titles:
1: Formulation of recycled soft PVC containing DEHP in compounds and dry-blends
2: Industrial use of recycled soft PVC containing DEHP in polymer processing by calendering, extrusion, compression and injection moulding to produce PVC articles

Use numbers: Uses 1 and 2

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1. THE CONTEXT OF SOFT PVC RECYCLATE AND ITS USE

DEHP has been used extensively in the past in flexible PVC across a wide range of applications and, as a result, there may be quantities of it well above 0.3% in post-consumer waste streams for several years into the future, although concentrations are bound to decline due to the sharp decrease in the use of DEHP over the last decade. The presence of DEHP in soft PVC recyclate is not intentional on behalf of the recyclers, instead it is present as a constituent of the waste material. As a result, if the continued “use” of DEHP in soft PVC recyclate is not Authorised, then there will be significant impacts on the recycling of flexible/soft PVC waste in the EU and hence on the EU recycling industry.

Typical end applications may be found here below :

Typical end articles covered by SPAC Application for Authorization

Type of application	Industrial/professional service life	Consumer
Construction and civil engineering outdoor (e.g. foils, road equipment)	x	
Construction indoor (e.g. warehouse flooring)	x	
Construction indoor (e.g. foils, flooring back layers)		x
Consumer products indoor (e.g. floor mats) *		x
Consumer products outdoor (for garden)		x
Footwear	x	x
Other	x	

Note : * limited volume of production of such articles

On 12 March 2012, the EC submitted a proposal for the interpretation of End of Waste Criteria to CARACAL on 12/03/2013 (Doc. CA/28/2013). From this interpretation it can be inferred that there are four potential categories of companies with respect to the recycling of post-consumer flexible PVC:

- Companies recycling waste directly into an article (integrated operators), which do not have to apply for Authorisation;
- Companies producing PVC regrind/pellets from waste containing DEHP which may:
 - Apply for Authorisation for placing its product on the EU/EAA market;
 - Export its product outside of EU/EEA;
 - Sell its product as a waste with the related consequences (the customer must have an environmental permit enabling him to handle waste and must fulfil waste legislation requirements).

As discussed below, the latter option is unrealistic as converters will not want to meet the requirements of waste legislation and this would further erode the margins that recyclers can earn on their recyclate, making it uneconomic to continue. The SPAC companies do not believe export of recyclate outside the EU is feasible for their production. They have therefore been left with no alternative but to apply for Authorisation.

The Chemical Safety Report (CSR) that forms part of this Application for Authorisation (AfA) demonstrates that the risks arising from the continued use of post-consumer PVC waste containing DEHP and its use in the manufacture of PVC articles are adequately controlled. The Analysis of Alternatives (AoA) also argues that there are no alternatives that are both technically and economically feasible to the applicants, and which would enable a cessation of the presence and hence “use” of DEHP in flexible PVC recyclate.

Although an SEA is not required in such situations, the aim here has been to illustrate the impacts of a refused Authorisation on the companies forming the Soft PVC recyclate Authorisation Consortium (SPAC). The SEA is also intended to support arguments as to an appropriate review period for Authorisation.

2. IMPLICATIONS OF A REFUSED REACH AUTHORISATION

Under the “Non-use” Scenario, the SPAC companies would cease recycling this waste. This would have several implications for the period from 2015 to 2020, with the latter relating to EU recycling projections.

- The SPAC companies would experience significant reductions in turnover over the period from 2015 to 2020.
- Although recycling of soft post-consumer PVC would continue, EU recycling targets for post-consumer flexible PVC would not be met. Other micro and small companies currently acting as recyclers have indicated that they will be leaving the market due to Authorisation and uncertainty over future regulation; and, it is highly unlikely that integrated recyclers have the capacity to take up the volumes currently being recycled by the SPAC, as well as those being recycled by the other companies that will be withdrawing from the EU market.
- An uneven playing field would be introduced into the recycling sector, with large integrated operators being given an unjustified advantage over smaller enterprises (soft

PVC compounders). This would be a clear distortion of the internal market, which would not be justifiable on the basis of protection of human health and the environment as the risks to human health and the environment from this recyclate are adequately controlled, and integrated operators will still be able to place articles containing DEHP- recyclate on the market. Moreover, a refused Authorisation would introduce a barrier to SMEs willing to enter into the recycling sector, as they would need to meet higher investment requirements in order to start-up as integrated converters.

- DEHP currently contained in articles in use in the EU will continue to be present in soft post-consumer PVC waste for the next 30 years, even under the theoretical situation where its use as a plasticiser in virgin flexible PVC is not/no longer Authorised. Furthermore, as indicated above, articles placed on the market by integrated recyclers will continue to contain DEHP, as will articles imported into the EU that are produced with soft post-consumer recyclate. Indeed, imported articles could contain higher concentrations due to the fact that there has not been the same general reductions in the use of DEHP in other regions (e.g. in China) as there has in the EU over the last decade or more.
- Converters downstream of the SPAC will need to replace recyclate with virgin PVC and additives. This will lead not only to increased costs to those converters that will shift to the use of virgin PVC compound, but also to increases in the environmental externalities associated with the increased production of virgin PVC. However, this is not possible for all converters within the SPAC's supply chain, so there will be knock-on effects including the closure of some converting companies, with this leading to the loss of jobs within this sector.
- Waste collectors will no longer have an outlet for post-consumer flexible PVC and will instead have to either export this waste (which will in turn be converted into articles that may be imported back into the EU) or will face increased gate fees for the landfilling or incineration of wastes that can no longer be sold to the SPAC. The latter is assumed the most likely scenario here, as it is uncertain how long other countries will continue to accept imports of such waste, particularly if the EU classifies it as hazardous.
- Increased landfilling and incineration of PVC wastes will take place. In some countries, incineration of PVC wastes is prohibited and this, together with restrictions on landfill capacity due to both a lack of space and Community objectives to reduce the use of landfill, could add to the current and future waste management dilemma.
- EU converters remaining in the market following a refused Authorisation and that currently rely on post-consumer soft PVC recyclate to produce "recycled products" for the EU market may lose market share within this niche product sector, to integrated recyclers or to non-EU manufacturers if they are competing against non-EU imports.

3. ECONOMIC IMPACTS OF A REFUSED AUTHORISATION

The Socio Economic Assessment foresees that the total financial and economic external damage costs would comprise between 210 €millions (low recycling projection) and 275 €millions (high recycling projection) under a refused Authorisation. The costs falling on waste collectors, recyclers and PVC compounders and converters reflect either increased operating costs or losses in turnover. These should be considered alongside the net increase in environmental and human health damage costs associated with the cessation of recycling and increased landfilling or incineration of flexible PVC wastes, and increased production of virgin flexible PVC.

4. SOCIAL IMPACTS FROM A REFUSED AUTHORISATION

The three SPAC companies would cease their post-consumer flexible PVC recycling under the “Non-use” Scenario, with this resulting in the loss of up jobs directly involved in the processing of soft PVC wastes would be lost; although other workers are indirectly involved in the recycling of these wastes, it is not assumed that their jobs would also be lost. These jobs in the SPAC companies would be lost in Sweden, and Italy.

There is also likely to be the loss of jobs within downstream converters that cease their operations as a result of the loss of availability of the recyclate produced by the SPAC companies.

In addition, further jobs may be lost in the supply chains (upstream and downstream) of the SPAC, for example amongst waste collectors and transport companies, due to multiplier effects, as well as in compounders and converters.

In total, between 150 and 200 jobs might be lost in different parts of the value chain.

5. BALANCE OF COSTS AND BENEFITS

As discussed, the net effect of a refused Authorisation would be one of significant economic costs for the three SPAC companies (between 210 and 275 €millions over the period 2015-2020). With respect to the potential impacts to workers, professionals and consumers from exposures to DEHP, the CSR has concluded that risks are adequately controlled. However, refusing an Authorisation to the SPAC companies would reduce the quantities of DEHP in articles placed on the EU market by only a small amount, estimated at less than 5 kt in 2020. In the meantime, integrated recyclers would be able to continue to place articles containing DEHP on the EU market; this would be in a higher quantity than that associated with the SPAC, as these integrated operators currently account for a larger share of post-consumer flexible PVC recycling.